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Community-based forest management

Report of the Secretary-General

Summary

Community-based forest management stands at a crossroads today. For the past three decades, community-based forest management as a concept has steadily expanded across the world, in both developed and developing countries, but its success has often been perceived as mitigated, partly because the complexity of the process involved in its implementation has too often been underestimated. However, these three decades, during which knowledge has been shared worldwide, have provided us with a rich set of experiences from which valuable lessons can be learned so as to ensure that community-based forest management is implemented in more effective ways. Additional emerging opportunities, including bridging the gap with the timber industry, payments for ecosystem services, reducing emissions from deforestation and forest degradation plus conservation, forest landscape restoration and a growing interest in forest financing, could breathe new life into the concept. As a result, community-based forest management will remain one of the most important instruments in the implementation of sustainable forest management.

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I. Introduction

1. Community-based forest management is undoubtedly the cornerstone of sustainable forest management. Contrary to certain myths, wherever there are forests there are people, who have traditionally been, and will continue to be, key forest stakeholders. The inclusion of such communities in forest management through community-based forest management greatly contributes to improving local livelihoods and rural development as well as ensuring environmental sustainability.

2. Yet after three decades of experience in the implementation of community-based forest management around the world, the value and success of these initiatives remains unclear, as do the means required to improve community-based forest management in the future. The present report analyses the key issues relating to community-based forest management today. In particular, it highlights the importance of forests to local communities, draws on past experiences to analyse the lessons learned and focuses on emerging opportunities to promote community-based forest management in the near future.

3. The present report has been prepared as a background paper to facilitate discussion during the ninth session of the United Nations Forum on Forests, on the theme "Forests for people, livelihoods and poverty eradication".

II. Community-based forest management: an overview

4. Community-based forest management is now a concept familiar to anyone involved in sustainable forest management, on all continents and in both developing and developed countries. In recent decades, its growing popularity among stakeholders has enabled it to be enshrined in virtually all major legal reforms in the forest sector.

5. However, partial scepticism remains as concerns community-based forest management, in part because of the confusion that the concept has created, notably because of the proliferation of terminology. Depending on the country, it may be referred to as participatory, joint or collaborative forest management, social forestry, community forestry or the co-management of forests. However, such terms tend to reflect expressions favoured at the national level rather than effective differences between the ways in which the concept has been translated into practice. For the purpose of the present report, community-based forest management will be defined in a broad sense as the management of forest lands and forest resources by or with local people, whether for commercial or non-commercial purposes. It is characterized by (a) the use of forests by local people on an individual or group basis for consumption and sale; and (b) the community management of forests, that is, a collaborative enterprise led by a group of local people who manage forests independently or with external support for the production of resources for consumption and sale. From its outset, the objective of community-based forest management has been a dual one — to contribute to the conservation of standing forests, and to promote rural livelihoods.

6. While this might seem fairly straightforward, community-based forest management actually encompasses a wide array of forms of forest management in which local communities are involved to varying degrees, in different ways and at different stages of the decision-making process. In a bid to clarify experiences in

community-based forest management and community participation at large, Nobel Prize winner Elinor Ostrom has spearheaded an entire school of research on this issue, and, together with Arun Agrawal, lists five distinct rights of local communities in natural resource management:[1]

(a) Access: The right to enter a demarcated area and "enjoy non-subtractive benefits" (e.g., hiking, using the area as a short cut to pass through);

(b) Withdrawal: The right to extract resources and products (e.g., cutting wood, collecting leaves);

(c) Management: The right to regulate resource withdrawal and beneficially alter the area (e.g., setting limitations on wood or leaf collection, planting trees or thinning the forest);

(d) Exclusion: The right to determine who is allowed access to and use of the forest, including how these rights may be transferred;

(e) Alienation: The right to transfer management and exclusion rights through sale or lease.

7. This typology is non-hierarchical and based on five variables, offering a multitude of combinations, which would explain the many ways in which community-based forest management has been applied across the world. Community-based forest management is thus context- and content-specific. For instance, a number of arrangements may permit access and withdrawal rights to selected users while maintaining government control over other functions.

8. Sally Jeanrenaud[2] provides an example of this with a description of forested commons in Portugal known as *baldios*. Modern agriculture in Portugal has led to the abandonment of many of the traditional values associated with *baldios*, but in 1976 the Government approved a law aimed at restoring such commons to their original users. *Baldios* are managed by five-member councils elected by commoners' assemblies, but, with the decline in the direct involvement of families in farming, many councils have been dissolved. By 2000, only 130 of them remained. In an interesting twist aimed at adapting to these changing conditions, communities that manage *baldios* now organize auctions so as to negotiate with concession-holders, the timber industry and the Portuguese forest service. The benefits accrued from the sustainable extraction of forest products are invested for the benefit of the community, thus illustrating how Agrawal and Ostrom's fifth variable, alienation, is adapted to changing circumstances, while actual management is maintained in the hands of the community.

9. In short, this typology shows that there is no single recipe for the success of community-based forest management. Rather, depending on the context and in particular on the set of forest-related stakeholders, different types of community-

[1] A. Agrawal and E. Ostrom (2001), "Collective action, property rights and devolution of forest and protected area management", in R. Meinzen-Dick, A. Knox and M. Di Gregorio, *Collective Action, Property Rights and Devolution of Natural Resource Management: Exchange of Knowledge and Implications for Policy*, Feldafing, Germany, Deutsche Stiftung fur Internationale Entwicklung (DSE)/Zentralstelle fur Emaehrung und Landwirtschaft (ZEL).

[2] S. Jeanrenaud (2001), *Communities and Forest Management in Western Europe: a Regional Profile of the Working Group on Community Involvement in Forest Management*, Gland, Switzerland, The World Conservation Union (IUCN).

based forest management are applicable to different contexts and can contribute equally to sustainable forest management, including rural development, whether in developed or developing countries.

III. Three decades of experience

10. Given the considerable variation in the ways community-based forest management has been implemented across the world, experiences have yielded a number of lessons learned at the global level. A short history of community-based forest management over the past three decades is set out in this section, with an emphasis on the evolution of the concept at the international level, as well as a discussion of the salient issues that have been highlighted by this rich experience.

11. Community-based forest management, as defined above, has existed since time immemorial. Communities have always managed the forests in which they live or are near to. Local knowledge, traditions, folklore and written history, when they exist, all have confirmed this close relationship between local communities and forests in countless locations around the globe. In the past two centuries, however, the growth and emergence of new actors, notably States and large-scale private actors, has led to substantial changes in forest management, with forest management being taken over by these new stakeholders. This has often led to the non-recognition by the State of local communities' customary rights to forest management because such rights had not been enshrined in statutory law.

12. In the 1970s and the early 1980s, as global awareness of deforestation was gradually increasing, the first solutions proposed were classic ones: forests had to be "protected" from local populations, many of which were accused of causing deforestation and forest degradation. This stance, known as "fortress conservation", clashed with development priorities, which often focused on rural livelihoods and the role of the environment in the promotion of rural development.

13. By the late 1980s, however, with the emergence of the concept of sustainable development, decision-makers at the national and international levels had come to realize that environmental conservation (including combating deforestation) and promoting rural development were not necessarily contradictory; if local communities took part in the management of forests, then this could not only contribute to reducing deforestation and forest degradation, but also help to improve local livelihoods. The concept of community-based forest management as the cornerstone of sustainable forest management had emerged.

14. In fact, community-based forest management had existed for at least a decade in a small number of countries, including in Nepal. In the Middle Hills of that country, forests are a key component of rural livelihoods, a fact that the Government recognized in 1978 when it passed a law that enabled forests on public lands to be handed over to local communities.[3] Under this system, known as the Hill Community Forestry Programme, the ownership of the land remains in the hands of the State, but the trees legally belong to the user group, represented by an elected committee. The user group retains complete control over the management of those forests, although the Department of Forests of Nepal has the right of veto should

[3] J. Carter and J. Gronow (2005), "Recent Experience in Collaborative Forest Management: a Review Paper". *Occasional Paper* No. 43, Bogor, Indonesia, Centre for International Forestry Research.

management rules be transgressed. The programme, which has been in place for more than 30 years, is, despite concerns about equity and governance issues, widely regarded as a great success.

15. At the time of the programme's creation, the experience of Nepal in community-based forest management experience was noted at the 1978 World Forestry Congress, held in Jakarta. That sparked interest in the part of a number of countries, including Indonesia itself, where one of the national timber companies, Perum Perhutani, had already begun a benefit-sharing programme with local communities in Java's teak plantations.

16. The idea quickly spread during the 1980s, buoyed by the emergence of the concept of sustainable development, and took on different forms wherever it took root. In the Brazilian Amazon, the local rubber-tapper (*seringueiro*) movement championed demands that the forests they lived in be managed according to their traditions; those demands resulted in the creation of extractive reserves within which local communities could carry out their own form of sustainable forest management without the threat of being expelled.

17. By the mid-1990s, different forms of community-based forest management were widespread across Asia and Latin America and were gaining ground in Africa, Europe and North America. In 1994, as a result of forestry reform in Cameroon, community forests were created for the first time in an African context, and more than a dozen countries across the continent quickly followed suit. At the same time, the Swiss canton of Freiburg was inviting local communities to participate in the elaboration of forest-management plans, while in Clayoquot Sound, Canada, public consultations were under way aimed at involving the country's indigenous populations in the management of forests where multinational corporations had been operating, which resulted in the creation of an environmentally sensitive, joint-venture logging company.[3]

18. The expansion of community-based forest management on all continents was reflected in the importance accorded it in intergovernmental discussions. The United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, resulted in the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests,[4] also known as the "Forest Principles", as well as chapter 11 of Agenda 21,[5] "Combating deforestation". Both documents call for the implementation of community-based forest management, as do the reports of the Intergovernmental Panel on Forests on its third[6] and fourth[7] sessions, the reports of the Intergovernmental Forum on Forests on its second[8] and fourth[9] sessions, and the reports of the United Nations Forum on Forests on its fourth,[10] fifth[11] and eighth[12] sessions.

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[4] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: Resolutions adopted by the Conference, resolution 1, annex III.

[5] Ibid., annex II.

[6] E/CN.17/IPF/1997/2.

[7] E/CN.17/1997/12.

[8] E/CN.17/IFF/1998/14.

[9] E/CN.17/2000/14.

[10] E/2004/42-E/CN.18/2004/17.

[11] E/2005/42-E/CN.18/2005/18.

[12] E/2009/42-E/CN.18/2009/20.

19. Communities also play a prominent role in the United Nations Forum on Forests non-legally binding instrument on all types of forests, which emphasizes that local communities are one of the main stakeholders in sustainable forest management. It also cites poverty reduction among communities as one of the key objectives of sustainable forest management and supports education, training and extension programmes among local populations. Above all, improving the livelihoods of forest-dependent people is highlighted as an essential component of the second global objective on forests.

20. However, in the past decade, a number of donors have shifted away from community-based forest management, many of them expressing their frustration at the lack of tangible results, in terms of both the state of forests and rural livelihoods. It is now clear that the initial enthusiasm, especially in the 1990s, led to high expectations, but few stakeholders realized the sheer complexity of the process of the implementation of successful forms of community-based forest management. This had the positive consequence of casting a different light on community-based forest management experiences and provided a number of valuable lessons for decision makers in improving both the efficiency and the effectiveness of community-based forest management in the near future.

IV. Current trends: the role of community-based forest management in rural development

21. Community-based forest management has now moved into a phase of consolidation. This section provides a snapshot of the importance of community-based forest management to the promotion of sustainable livelihoods, in terms of both cash income and non-cash value.

A. Forest dependence among women and youth

22. The value of forests is well recognized, in terms of both the timber and the non-timber forest products sold in great quantities all over the world. However, the non-cash value of forests is all too often overlooked. Forests provide daily support to households everywhere. Researchers are aware of the importance of non-cash forest value (also known as consumption value), but it is not as yet recorded in government statistics and so largely remains invisible, with its value effectively set at zero. Income in typical household budget surveys and living standard surveys, conducted according to models established originally by the World Bank or the International Labour Organization, includes:

(a) Cash income from employment;

(b) Cash income from sales of farm crops;

(c) Cash income from sales of wood and non-wood forest products;

(d) "Non-cash" (consumption) income from household consumption of farm crops.

23. However, this does not factor in "non-cash" (consumption) income from forests, such as that represented by the collection and consumption of forest fruit, nuts, vegetables, meat and medicine, as well as the use of wood and non-timber forest products in the household, such as fuelwood. If, in calculating the total annual

income of a developing-country rural household, both cash and non-cash income are factored in, it becomes apparent that this income source, which officially is completely invisible, is in many cases extremely important.

Table 1
Forest use in the village of Tenkodogo, Burkina Faso[a]
(Percentage)

Category of forest user	*Cash income*	*Non-cash income*	*Forest income as a percentage of all income*
Men (above average poverty line)	42	58	
Percentage derived from forest	7	31	38
Women (above average poverty line)	36	64	
Percentage derived from forest	10	34	44
Men (below average poverty line)	38	62	
Percentage derived from forest	9	36	45
Women (below average poverty line)	32	68	
Percentage derived from forest	12	38	50
Average contribution of cash and non-cash income to total income	37	63	
Average contribution of forest income to total income	9	35	44

[a] IUCN, Burkina Faso (2009), "Applying the Forests-Poverty Toolkit in the Village of Tenkodogo, Sablogo Forest", Ouagadougou, Burkina Faso.

24. Table 1 shows that in Tenkodogo, Burkina Faso, a Sahelian farming village about three hours from Ouagadougou, non-cash income makes a much larger contribution annually to total income than does cash income. For men who are wealthy or above the average poverty line, non-cash income represents 58 per cent of total income, while for the poorest category — poor women — non-cash income represents more than two thirds of total income, at 68 per cent. Forest income (cash and non-cash) averages 44 per cent of total income, and it is clear that for each of the wealth and gender categories the value of the non-cash contribution from forests to household income is much higher than the value of cash income from forests. The same kinds of findings hold true for many other parts of the world and in particular in developing countries.

25. Although the cash contribution of forest products to household income may not be enormous — table 1 shows that it averages only 9 per cent of all income — such cash value must be put into context. Cash sales of forest products are a poor indicator of the total use people are making of forests and represent only the tip of the iceberg.

26. All household income in rural areas comes partly from what can be grown on a farm and partly from non-farm income, which consists of a mix of cash income earned as wages and income drawn from off-farm natural resources such as forests, rivers and the sea. The remoter the location, the smaller the cash income from wages and the greater the dependence on farm produce and off-farm natural resources. In all cases, the importance of the forest co-varies with the importance of agriculture, and the two need to be understood together, from the point of view of local peoples.

27. Forest dependence thus varies in predictable ways, increasing in remoter areas, where markets are far away and only sales of very-high-value forest products are of interest (spices such as nutmeg, for instance), and decreasing where there are roads and markets and where sales of agricultural crops are easy to organize and wage-labouring opportunities may present themselves. Studies have shown how closely poverty levels and forests can correlate at the level of national analysis. Such differences can be seen over quite short distances and are linked to what constitutes a walkable distance to market and back.

28. Women in many societies turn to forests to diversify and add nutrients to the range of subsistence foods they offer their families, and also for cash. They are often aided in this task by youth, who frequently forage in the forest for their own consumption or to enrich the household's diet. It is normal to find that women and youth are more dependent than men on forests for off-farm income, as shown in table 1, while men may depend more on wage-labouring. For instance, among the Akan in southern Ghana, while the profits from any on-farm activities go to the male head of household, women often generate income which they control themselves, to safeguard their future. Married women may choose to make remittances to their natal families, for instance, as security in case of divorce. In Cameroon and Benin, women increase their activities related to the collection and sale of non-timber forest products right before children's school fees are due, at times of year when ill health is more common and during the pre-harvest period, when hunger is greatest.

29. Not only women and youth but poorer people in general are more dependent on forests for cash and non-cash income. This is partly because they lack the land or labour capacity for more substantial farming activities or for migrant labouring. Although wealthier households may collect more forest products by volume, what poor households collect represents a far higher percentage of their total cash and non-cash income. Chronic poverty (profound, hard to get out of and intergenerationally inherited) is more common in remote forested areas than in less remote areas.

B. Community-based forest management and agriculture

30. Types of non-cash forest dependence vary in different parts of the world, in synergy with types of agriculture. While farm production is almost always primary, the farming household relies on the forest both directly (through inputs to diet, for instance) and indirectly (through inputs to the sustainability of the farming enterprise). In many parts of Africa, animals feed in forests for a considerable proportion of the year. The main non-cash value of forests for those who have cattle is that it keeps their main household asset alive and in good health throughout the year during periods when there is no grass.

31. In the upland hill-farming systems of Nepal, cattle are fed in forests, or on fodder from forests, and kept on terraces so that their manure can be used to supply crops with nutrients. That farming system demonstrates how close the symbiotic relationship with the forest can be. Today, given the growing recognition of this close relationship, forest landscape restoration is increasingly being implemented in a bid to create a win-win situation involving a mixed landscape that includes forests on the one hand and agriculture on the other. The issue of forest landscape restoration is described in greater length in section C of the present report.

32. In the past, in almost every part of the world, before the use of purchased fertilizer farmers made use of forest soil fertility in shifting cultivation systems. Poor soils, in which accumulating weeds and soil toxicity begin to make farming all but impossible after two or three years, drove farmers to move on around their cycle of plots. In many systems, ranging from those in West Africa to those in Indonesia, farmers enrich the plots they temporarily abandon with desired tree species, so that when they return after a few years, they have a more valuable forest than the one they left behind. The farmed parklands of the Sudanic zone in Africa and the slow transition into the multi-storey agro-forests found in Indonesia, Viet Nam and elsewhere are examples of this practice. Farming yields carbohydrates and root vegetables, while the forest can provide protein, green leaves, vitamins and minerals.

33. As studies have suggested, straightforward poverty reduction based on the kinds of cash income that can be generated from sales of non-timber forest products is likely to be limited in areas where the commercialization of forest products is more difficult. These include areas with little or no physical access to markets, either because they are geographically distant or because the cost of transport makes any sale of these products unviable. On the other hand, since all cash-income-earning opportunities are limited, the contribution of forest income is not negligible. The real lesson, however, is that bedrock support for the poor who live in and near forests often comes from non-cash income, and its invisibility makes it very easy to underestimate its importance.

C. Economic returns of community-based forest management

34. The bulk of the data available on the role of community-based forest management in rural development focuses on direct economic returns rather than on non-cash income, but, even then, the data are constrained by the fact that forest enterprise and revenue data are scattered across multiple agencies and databases. This suggests that community-based forest enterprises generate much more revenue than appears in national accounts or is reflected in aggregated data such as the five-yearly forest resource assessment.

35. Community-based forest enterprises are defined in this section as formal or informal enterprises managed by more than one member within the same community. Such enterprises operating in the informal economic sectors in forested developing countries generate multiple jobs, profits and local incomes to formal-sector timber, wood and non-wood operations. Smallholders are increasing their production in a range of non-wood forest products, including rattan, bamboo, paper fibres, cloth fibres, traditional thatching materials, ethnic foodstuffs and spices, medicinal plants and herbs, fruits, seeds and specialty products (honey, birds' nests, insect dyes and fibres, resins, etc.). Interest in natural products among middle-income consumers and the expanded use of natural products for tourism installations are two quickly growing markets.

36. Community forest products are therefore not only about timber, yet the non-timber forest product market is poorly understood. It is known to be huge and diverse, and many products have commercial potential, albeit limited, as a significant source of income. In 2005, the Food and Agriculture Organization of the United Nations (FAO) estimated the import value of some 34 different non-timber forest products to be $7 billion, yet more than 90 per cent of the non-timber forest product trade takes place domestically, a trend that is continuing unabated,

especially in developing regions. The total value of medicinal plants globally already exceeds $100 billion, including planted varieties; a conservative estimate is that non-timber forest products generate $7 billion in import value and $70 billion in all trade, discounting barter and local subsistence uses. Community-based forest management accounts for only part of those figures, but this clearly illustrates the potential for growth among community-based forest enterprises within this market niche.

37. As an example, sales of four types of nuts, leaves and fruits basic to West African cuisine generated $20 million in local market value in 1999, retailing at $220 million in Europe, with sales growing at 5 per cent a year and expanding towards the United States of America and the United Kingdom of Great Britain and Northern Ireland. New immigration and restaurant trends in these diaspora countries indicate that there has probably been a dramatic increase since 1999. This shows clearly that while some markets will be captured by large-scale collectors and investors, many small-scale niches could easily be filled by community-based forest enterprises.

38. More recently, the agreement reached on access and benefit-sharing at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization) provides further income opportunities for community-based forest management. The agreement is aimed at strengthening existing measures concerning the use of genetic resources and communities' ownership of traditional knowledge, notably by extending the fair and equitable sharing of benefits to include the use of derivatives of genetic resources. According to its signatories, local communities, including indigenous populations, stand to benefit considerably from the implementation of the new Protocol.

39. Markets for ecosystem services are also proliferating, with a wide-ranging set of arrangements for watershed and water services and biodiversity and new arrangements for carbon sequestration trading; these represent both threats and opportunities. The rules are still being formulated, and how these markets are defined will have a major impact on the role of community-based forest management. In principle, markets for ecosystem services could be useful mechanisms for capturing some of the non-economic or less tangible values of community-based forest management. Community-based forest enterprises have thus emerged as important and potentially major players within the forest marketplace.

40. Community-based forest enterprises can be very profitable where tenure is secure and they have an enabling environment to grow and mature. A report on community-based forest enterprises issued in 2007 found in its 20 tropical-country case studies that such enterprises showed returns of anywhere between 10 and 50 per cent from timber and non-timber forest products activities. The report also noted that the more mature enterprises invested in diversification, making greater use of their forest resources, and thereby simultaneously managed risk and created new sources of employment and community skills. That tendency reflects the versatility and long-term viability of such enterprises. Emerging ecosystem services and carbon markets can also be lucrative and growing additions to enterprise returns.

41. There are two other important aspects to the local economy benefits generated by community-based forest enterprises. The first is their value in complementing other sorts of enterprises, to create a generally robust economy. They can generate a range of goods and services that are not created by individual enterprises or private industry. Community-based forest enterprises tend to invest more in the local economy than do their private-sector equivalents and foster social cohesion and longer-term equity. By dint of their flexible, locally adapted structures, they are able to switch among different blends of products and to apply traditional knowledge to their operations. In this way they create innovative approaches and find new ways to increase employment and diversify income strategies.

42. The second important aspect is that in addition to ecosystem services, community enterprises make an important contribution to conservation. With increasing recognition of the rights of local communities and indigenous land and resource rights, the amount of forest effectively conserved by such communities has been expanding. This may take the form of forest lands, agroforestry and forest mosaics. These community-conserved forests are an important and growing complement to protected areas under government stewardship or ownership. A conservative initial estimate of the aggregate forest area in Africa, Asia and Latin America under community protection is 370 million hectares — an area nearly as large as the 479 million hectares of forests that FAO estimated fell within public protected areas in 2000. The financial contribution of communities to conservation efforts are also important and likely to rise, as table 2 below demonstrates.[13]

Table 2
Contributions to conservation finance, 2004

	Source of funds		
	Government support to protected-area systems	*Official development assistance and foundation support*	*Community investment*
Trend	Stable	In decline	Growing
Amount	$3 billion per year globally, comprising $1,000 to $3,000/ha in developed countries and $12 to $200/ha in less developed countries	$1.3 billion/year official development assistance; others, $200 million/year	$1.5 billion to $2.5 billion/year, at a minimum

Note: Community investment is based on data from communities on average annual expenditure and in-kind labour allocated to fire control, guarding, biological monitoring and habitat restoration.

43. Beyond the raw numbers, the social benefits of employment in community-based forest enterprises can be enormous. In post-conflict countries such as Liberia, where employment for ex-combatants in their home villages is scarce, the opportunities afforded by community-based forest enterprises can be considerable,

[13] A. Molnar, S. J. Scherr and A. Khare (2004), *Who Conserves the World's Forests? A New Assessment of Conservation and Investment Trends*, Washington, D.C., Forest Trends.

both economically and in terms of social reintegration. Women also benefit from employment; they are able to scale up their own activities and organize themselves into groups. Mature community-based forest enterprises in Bolivia (Plurinational State of), Burkina Faso, Honduras, Mexico, Nepal, Guatemala and Peru have been instrumental in providing funds for village roads, schools, health care, old-age pensions, cultural events and fire protection and other conservation investments.

V. Lessons learned

44. Forests play an essential role in the livelihoods of 1.6 billion people in terms of both cash and non-cash income. Nevertheless, in spite of the huge contribution that community-based forest management could make to rural development, donors and organizations that invested financial, technical and human resources into the promotion of community-based forest management in the field have realized that the seeming simplicity of the concept was underpinned by a complex social and institutional process. First among the lessons learned was the fact that some stakeholders were still lukewarm concerning the idea of involving local communities in the management of forests. Despite changing practices, a small number of stakeholders still resist implementing these new forest management principles in the mistaken belief that local populations are the main cause of deforestation.

45. Fortunately, these examples are becoming increasingly scarce, but in many instances institutions and legislation have not been harmonized to facilitate the implementation of community-based forest management. In particular, many community-based forest management initiatives include the creation of community-based forest enterprises, yet policy and regulatory frameworks can be a major barrier to their emergence and growth, especially as rules are usually designed for industrial-scale operations or a small number of companies.

46. But Governments also play an important role in promoting community-based forest enterprises. For example, an innovative programme, the Forest Conservation and Sustainable Management Project, was launched in Mexico in 1996, supported by the World Bank with the aim of supporting and promoting community-based forest management, and was established as a pilot project in the state of Oaxaca. The project was geared towards encouraging and promoting community forestry in Oaxaca, where a large number of communities won stronger tenure rights over their forests in reforms in the 1980s and 1990s.

47. The programme soon expanded to five other major timber-producing states in the country. The project works with interested communities to co-finance forest management plan preparation and other silvicultural, conservation and market studies based on community demand, building the skills and capacity of community members and private-sector service providers so that communities can drive their own forest management and enterprises. The project has collaborated with the World Wildlife Fund to cover forest certification evaluation costs for a subset of communities and promoted diversified enterprises based on non-timber forest products, tourism and cultural services, including traditional medical care. The Government found that its support was quickly translated into increased economic activity and local job creation, with important conservation benefits and investments in other sectors.

48. Secondly, the barriers to the successful implementation of community-based forest management may be due to the communities themselves. When the concept first emerged and was popularized in the 1980s, it was all too often assumed that local communities already had the capacity to organize themselves as well as the technical knowledge to manage forests for lucrative purposes. In the 1990s, however, there was a gradual realization that local populations generally had neither the internal institutional structures in place to manage forests collectively nor the know-how to carry out the reduced-impact or other sustainable forms of logging that were key to improving their livelihoods.

49. To begin with, local communities need to develop the political and social will to establish a community forest. After decades of mistrust between Governments and local communities, the latter are often initially reluctant to engage in collaboration with Government officials. Even when communities display a willingness to implement community-based forest management, a strong commitment is necessary to weather the complex processes of approval, production and marketing and related problems as well as the social pains of organizational growth. Non-governmental organizations can play a supportive role in these initial activities, as well as in agroforestry and the creation of community-based forest enterprises. International and non-governmental support for the development of such enterprises has been in many cases key to creating the political space for innovation and adapting to Government reforms in the forest sector. Where support exists for market information, technical training, business and organizational capacity-building, a number of community-based forest management initiatives have been successful; those without such support have often failed.

50. One key dimension of the success of community-based forest management from the community's viewpoint is representation and inclusion. This is a particularly complex issue, as it entails ensuring that all categories of the community take part in decision-making and perceive that material benefits will result from managing the forest. To date, however, many community-based forest management initiatives have a mixed record on the incorporation of more marginalized segments of the community, notably women and the very poor, although many of the community-based forest enterprise case studies revealed an increased level of inclusiveness as they matured. The diversification of income streams and employment options is an important way of ensuring that women and young people participate and benefit. Diversification has included the extraction and marketing of non-traditional wood products, non-timber forest products and ecotourism.

51. At the other end of the spectrum of inclusion lies the risk of elite capture. Because of the limited capacity and level of education among many communities, a small number of wealthy and/or powerful individuals may appropriate decision-making powers as well as a disproportionate share of the benefits.

52. In some cases, local elites have even fronted fictitious community forests or used other such administrative strategies to divert resources from their intended recipients.[14] Such actions require a better knowledge of legal and administrative systems as well as a greater capacity to utilize these systems than other local actors

[14] J. C. Ribot (2002), "African Decentralization: Local Actors, Powers and Accountability", Democracy, Governance and Human Rights Paper No. 8, United Nations Research Institute for Social Development.

have, in particular in the absence of capacity-building. In such cases, even if management practices are sustainable from an environmental standpoint, they do not fulfil their objective of reducing poverty and improving local livelihoods, as they continue to concentrate returns from the forest in the hands of a few.

53. Capacity-building with assistance from outside organizations, be they Governments or non-governmental organizations, is one way of overcoming these issues. Through such means, other community members acquire the organizational and entrepreneurial skills necessary to manage community forests, thus widening the pool of community participants in community-based forest management and contributing to a more inclusive distribution of decision-making powers and benefits.

54. Horizontal learning is another effective way of helping community-based forest management initiatives develop and grow. This need not stop at the national level; in some cases, horizontal learning has taken place at the international level through South-South cooperation. The sharing of experiences among community-based forest management initiatives with similar organizational structures and forest products can be essential to finding appropriate solutions to problems or identifying a new range of opportunities. This is particularly important in the case of community forest management practices and the generation and running of enterprises based on ecosystem services. Some national forest policies have provided explicit space for communities to associate with one another (e.g., Bolivia (Plurinational State of), Guatemala, Honduras, Mexico). In Liberia, a union of chainsaw loggers has been set up that supports the creation of new policies and contributes to the establishment of long-term relationships with forest communities on mutually acceptable terms.

55. The importance of learning is, however, by no means limited to community-based forest management in developing countries. In the 1990s, the United States Department of Agriculture Forest Service created a set of adaptive management areas within which a collaborative learning programme was established that has since been successfully used for natural resource policy decision-making and involving communities in policy discussions. According to the programme's key principles, it focuses on concerns and interests rather than on positions, features communication and negotiation interaction as the means through which learning and progress occur, and recognizes that considerable learning — about science, issues and the differences between scientific and local knowledge — are essential to the implementation of sustainable forest management with the help of local communities.[15]

56. One other useful approach for community-based forest management initiatives is to create associations that naturally favour strong networking and social organization in order to manage community-based forest enterprises more effectively. Associations have also played a positive role in sharing knowledge among enterprises and communities with similar interests and concerns. Such connections have helped smallholders and communities support the government along with the private sector in the setting up of regulatory rules and frameworks and providing a platform for conflict mediation. It has also enabled smallholders in

[15] B. Rose (1995), Cispus Adaptive Management Area, Randle and Packwood Ranger Districts, Gifford Pinchot National Forest, Executive summary, United States Department of Agriculture Forest Service.

forest lands where they have not had tenure rights to access forests for collective management and community enterprise.

VI. Emerging issues and points for discussion

57. Given (a) its importance in terms of rural development and livelihoods, (b) the fact that it has been enshrined in many legislations around the world, and (c) the number of market niches in which it could fit (as noted in section IV.C), community-based forest management has great potential for expansion in the near future, further contributing to sustainable forest management and improving rural livelihoods more generally. A number of emerging issues, which are discussed below, could present additional opportunities for community-based forest management to expand and be successful, although measures need to be taken to ensure that community-based forest management benefits from such new initiatives.

A. Communities, companies and timber production

58. One emerging trend in the past decade has been the growing relationship between industrial timber producers and local communities. While this may not be defined specifically as community-based forest management, it relates to the issue and constitutes a new area from which communities stand to benefit and into which community-based forest management could expand.

59. In many countries, especially forest-rich ones, forest management and timber production has historically been dominated by large-scale timber companies with a mixed record in terms of collaborating with local communities and promoting rural development. This has given rise to criticism that the tenure models on which this large-scale industry is based, including the concessionary systems prevalent in Central Africa and parts of South-East Asia, as well as the State's ownership of forests, do not promote local development. It has also been argued that small and medium-sized forest enterprises provide much more direct benefits to local communities and that legislation should favour these in the light of the greater role they play in rural livelihoods.

60. Small and medium-sized forest enterprises, especially community-based ones, are indeed more likely to provide benefits and involve local communities directly in forest management, in particular when they are managed or owned by community members themselves. However, the growing trend of forest product certification is also strongly contributing to large-scale companies reaching out to collaborate with local communities as a key condition for obtaining certification.

61. In Cameroon, for instance, the relationship between large timber companies, many of which originate from abroad, and local communities has historically been a difficult one. Yet in recent years the increasing demand for certified forest products, spearheaded by changing public procurement policies in Europe, has provided a strong incentive for timber companies to set up community programmes. These include favouring local communities in employment; setting up capacity-building programmes within communities so that they can manage funds handled by the company as a benefit-sharing measure; and even rural extension programmes aimed

at helping local communities engage in more sustainable forms of agriculture and animal rearing.

62. Changing market preferences and governance structures more generally are also contributing to the fostering of greater cooperation between local communities and large companies, in terms of both forest management and benefit-sharing. The Canadian Forest Service, for instance, launched the Model Forest Programme in 1990, partly in response to the increase in conflicts among forest stakeholders. A model forest brings together and forms a partnership between individuals and organizations with a common objective: sustainable forest management. These stakeholders include not only large-scale companies but also local governments, landowners and indigenous peoples, known in Canada as the First Nations. Within a model forest framework, partners can gain a greater understanding of conflicting views and combine local and scientific knowledge to improve forest management. The primary objective of this network of model forests is to resolve conflicts and gain local support, but, in practice, it has undeniably resulted in the promotion of community participation, benefit-sharing and community-based forest management more generally. With the creation of the International Model Forest Network, model forests have now been set up in 25 countries, both developing and developed, around the world.

B. Payments for environmental services, climate change and REDD-plus

63. A second trend, payments for environmental services, has been expanding over the past decade, but the emerging climate-change debate, and above all reducing emissions from deforestation and forest degradation plus conservation (REDD-plus),[16] could result in a significant wave of funding for sustainable forest management. Community-based forest management could stand to benefit substantially from both these initiatives, but a number of potential pitfalls need to be avoided.

64. A payment for ecosystem services is the provision of monetary compensation in exchange for ecosystem services. Payments for ecosystem services can cover activities such as carbon sequestration and storage, biodiversity protection, watershed protection and landscape beautification. Payments for ecosystem services need not take place in a forest context, although forests are ideal for this type of approach, given the multiple benefits they yield when managed sustainably. It is important to note that such payments are voluntary transactions and require a well-defined ecosystem service and that the rights of communities to the forests that they manage are also well defined. In some cases, official ownership is even necessary.

65. Payments for ecosystem services thus present a particular challenge for community-based forest management initiatives, which can benefit poor, forest-dependent communities more than other conservation measures. When located close enough to markets, forests provide many services that can yield economies of scale. Yet uncertainties still remain as to who will be the actual beneficiary of such

[16] REDD stands for reducing emissions from deforestation and forest degradation; REDD-plus includes the role of the conservation and sustainable management of forests and the enhancement of forest carbon stocks.

payments, and whether the role of local communities will be fully recognized. It is imperative, therefore, that such schemes recognize the essential role that communities play as stewards of forests so that community-based forest management may fully benefit from these new measures.

66. Payments for ecosystem services are increasingly viewed as a subset of REDD-plus; in that connection, community-based forest management may be facing similar challenges. In addition, funding and requirements for REDD-plus may undermine the trend towards decentralization of which community-based forest management has been part.[17] In particular, the generous and sustained source of funding that REDD-plus could turn out to be would reduce the earlier financial burdens that had prompted decentralization in the first place. For instance, the conservative market value for avoided deforestation in Indonesia, which stands at $108 million per year, exceeds the entire 2005 budget of the Ministry of Forests of Indonesia.

67. In addition, the implementation of REDD-plus will place new demands on national forest managers that will involve detailed carbon-oriented forest management plans, reliable baseline data and quantitative monitoring, and evaluation and reporting at the national level. Given the technical complexity of such an undertaking and the sophisticated technology required for producing such data, communities may participate in collecting forest-specific data, but carbon accounting, which is a major component of REDD-plus, may require more centralized forms of forest management.

68. It has also been suggested that the increased market value of forests resulting from REDD-plus funding could provide an incentive for central Governments to increase control over forests once again. Under a performance-based payment mechanism, they point out, Governments will be under pressure to avoid the risk of non-payment resulting from the failure of the local level to adequately enforce sustainable forest management.

69. All these problems, however, can be avoided. If communities are left out of the greater REDD-plus picture, there is a real risk that they may lose out on a mechanism that was initially aimed at recognizing the value of standing forests, which they help manage sustainably. Nevertheless, if communities are taken into account in both payments for ecosystem services and especially REDD-plus, and if their crucial role in the implementation of sustainable forest management is officially recognized, and even championed, by national Governments, then community-based forest management could benefit substantially from such new and innovative sources of funding.

70. One benefit that local communities have already reaped from REDD-plus is the importance that REDD-plus debates have accorded indigenous peoples and other forest-dependent communities. The Coalition for Rainforest Nations — the group of countries that initially championed REDD-plus, contributing to the importance it has today in the context of international policies — has always been careful to ensure that indigenous and other forest-dependent peoples receive the attention that they deserve. This has undoubtedly contributed to the prominent role that they now play in debates related to REDD-plus.

[17] Phelps, Webb and Agrawal (2010), "Does REDD+ Threaten to Recentralize Forest Governance?" *Science*, Vol. 328, pp. 312-313.

C. Forest landscape restoration

71. Community-based forest management need not and should not be thought of as being limited to the forest sector and timber production. Given the increasing recognition of intersectoral linkages and the importance of taking other sectors into account in the implementation of sustainable forest management, it must be acknowledged that community-based forest management is also a part of the broader landscape of environmental management and rural livelihoods.

72. The Loess plateau, in China, is one of the most successful examples of this process. In a mere 15 years, local communities, in collaboration with the Government, have turned a barren, eroded land into a rich landscape of forests, agroforestry, terraced agriculture and pastures. Forests provide the soil-retention and water-production functions that are essential for agriculture and for animal husbandry downstream, while local communities manage forests in collaboration with the Government and are able to sustainably extract timber and non-timber forest products for their own consumption and for sale in local markets.

73. Similar initiatives are now being implemented in other countries through the Global Partnership on Forest Landscape Restoration. Through active engagement, collaboration and the sharing of ideas and information among governments, communities, organizations and individuals, the Partnership promotes an integrated approach that seeks to ensure that forests, trees and the functions that they provide are effectively restored, conserved and employed to achieve sustainable livelihoods and ecological integrity. The Partnership promotes active engagement, negotiation and collaboration among all stakeholders, especially local communities, which are the first to benefit from this initiative. Together, stakeholders agree on a package of forest functions that need to be restored, and, throughout the process, they continually learn about and adapt to improving environmental conditions.

74. There is huge potential in this area, as more than 1 billion hectares of degraded areas have been identified that could benefit from forest landscape restoration. Within these landscapes, community-based forest management would no longer constitute a stand-alone approach but would instead be incorporated into other existing rural economic activities. That would contribute to (a) spreading the costs of technical training and capacity-building across several sectors, thus reducing the cost burden of community-based forest management on its own, and (b) allowing for a more integrated approach to rural development and livelihoods. This, in turn, could increase awareness of the impacts, both positive and negative, of different sectors on community-based forest management, in a bid to implement more sustainable forms of forest management through the identification of synergies.

D. Forest financing

75. Last but not least, growing interest in forest financing as a means of implementing sustainable forest management could provide new opportunities for community-based forest management. In 2009, the United Nations Forum on Forests, at the special session of its ninth session, adopted a resolution on means of implementation for sustainable forest management, launching two sister initiatives, the Open-ended Intergovernmental Ad Hoc Expert Group on Forest Financing and a facilitative process.

76. One of the main objectives of both initiatives is to assist countries in the mobilization of funds to implement sustainable forest management, of which community-based forest management is the cornerstone. One year on, both the Ad Hoc Expert Group and the facilitative process are still in their infancy, but special care is being taken in both cases to ensure that community-based forest management benefits substantially as the resolution is put into practice. However, the benefits that forest financing could have for community-based forest management remain contingent upon external financing from public and private sources so as to ensure that the forest financing strategic workplan is effectively implemented.

VII. Conclusion

77. Community-based forest management is at a crossroads today. On the one hand, after the initial enthusiasm of the 1980s and early 1990s, which led to expectations that community-based forest management would be the silver bullet for "saving forests", donor support has stabilized as stakeholders have come to the realization that community-based forest management can be a complex, costly and time-consuming process. On the other hand, three decades of experience have yielded a number of valuable lessons that could help community-based forest management initiatives meet with considerably greater success in future. Along with emerging opportunities such as payments for ecosystem services and REDD-plus, partnerships with the timber industry, forest landscape restoration and the growing interest in forest financing, and barring pitfalls specific to some of these issues, community-based forest management could be one of the most effective means of ensuring sustainable forest management around the world.